			OURCES IINING	AMENDE	FOR D REPORT						
			APPLICATIO	N FOR I	PERMIT TO DRILL			1. WELL NAME and NUMBER 16-23D-37	BTR		
2. TYPE (OF WORK	DRILL NEW WEI	L 📵 REE	NTER P&A	WELL DEEPEN W	/ELL (3. FIELD OR WILDCAT CEDAR RIM			
4. TYPE C	OF WELL		Oil Well	Coalbe	d Methane Well: NO			5. UNIT or COMMUNITIZATION AGREEMENT NAME			
6. NAME	OF OPERATOR	२	BIL	L BARRE	IT CORP			7. OPERATOR PHONE 303 312-8164			
8. ADDRE	SS OF OPERA		099 18th Street	Ste 2300	0, Denver, CO, 80202			9. OPERATOR E-MAIL BHilgers@billbarrettcorp.com			
	RAL LEASE NU L, INDIAN, OR				11. MINERAL OWNERSH	IIP AN 📵 STATE () FEE ()	12. SURFACE OWNERSHIP FEDERAL INDIAN	STATE () FE	E (III)
13. NAME	OF SURFACE	E OWNER (if box 1		Creek In	vestments			14. SURFACE OWNER PHONE (i 435-823-		: 'fee')	
15. ADDR	RESS OF SURF	FACE OWNER (if b		16. SURFACE OWNER E-MAIL (i	f box 12 :	= 'fee')					
		OR TRIBE NAME	· ·		18. INTEND TO COMMIN		N FROM	19. SLANT			
(if box 1	2 = 'INDIAN') 	Uintah and Ouray			(T)	mmingling Applicat	ion) NO 📵	VERTICAL DIRECTIONAL	📵 но	ORIZONT	AL 🔵
20. LOC	ATION OF WEI	LL		FO	OTAGES	QTR-QTR	SECTION	SECTION TOWNSHIP RA		ME	RIDIAN
LOCATION	ON AT SURFA	CE		266 FSI	_ 1064 FEL	SESE	23	3,0 \$ 7.0	W		U
Top of l	Jppermost Pro	oducing Zone		810 FS	L 809 FEL	SESE	23	3.0 S 7.0	W		U
At Total	l Depth			810 FS	SL 810 FEL SESE 23			3.0 S 7.0 W U			
21. COUI	NTY	UINTAH			22. DISTANCE TO NEAR	EST LEASE LINE (F		23. NUMBER OF ACRES IN DRILLI 640	ING UNIT	-	
					25. DISTANCE TO NEAR (Applied For Drilling of		BOOL	26. PROPOSED DEPTH MD: 10355 T	VD: 1030	0	
27. ELEV	ATION - GROU	JND LEVEL			28. BOND NUMBER			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE			.E
		6485			Hole Casing,	LPM8874725	ormation	43-18	10		
String	Hole Size	Casing Size	Length	1/ ig		Max Mud Wt.	_	Cement	Sacks	Yield	Weight
Cond	26	16	0 - 80	65.0		8.8		No Used	0	0.0	0.0
Surf	12.25	9.625	0 - 3300	36.0	J-55 ST&C	8.8	Halliburt	on Light , Type Unknown	200	3.16	11.0
							Halliburtor	Premium , Type Unknown	210	1.36	14.8
Prod	8.75	5.5	0 - 10355	17.0	P-110 LT&C	9.6		Unknown	660	2.31	11.0
								Unknown	960	1.42	13.5
					АТ	TACHMENTS					
	VE	RIFY THE FOLL	OWING ARE	ATTAC	HED IN ACCORDANC	E WITH THE UT	AH OIL AND GAS	CONSERVATION GENERAL	RULES		
⊮ v	VELL PLAT OR	MAP PREPARED B	Y LICENSED S	JRVEYOF	R OR ENGINEER	✓ CON	IPLETE DRILLING F	PLAN			
I ✓ Al	FFIDAVIT OF S	TATUS OF SURFAC	E OWNER AGI	REEMENT	(IF FEE SURFACE)	FORI	/ 5. IF OPERATOR	IS OTHER THAN THE LEASE OWN	ΕR		
I ✓ DI	RECTIONAL S	URVEY PLAN (IF D	IRECTIONALL	Y OR HO	RIZONTALLY DRILLED)	Г торо	OGRAPHICAL MAP				
NAME V	enessa Langm	acher		TITLE S	enior Permit Analyst		PHONE 303 3	12-8172			
SIGNATI	URE			DATE 0	5/15/2012		EMAIL vlangm	acher@billbarrettcorp.com			
API NUM	IBER ASSIGNE	D 4304752682000	0		APPROVAL						

BILL BARRETT CORPORATION DRILLING PLAN

1/04/2011

16-23D-37 BTR

SE SE, 266' FSL and 1064' FEL, Section 23, T3S-R7W, USB&M (surface hole) SE SE, 810' FSL and 810' FEL, Section 23, T3S-R7W, USB&M (bottom hole) Duchesne County, Utah

Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and 1 - 2. **Gas and Other Minerals**

Formation	Depth – MD	Depth - TVD		
Lower Green River*	5,808'	5,769'		
Douglas Creek	6,693'	6,639'		
Black Shale	7,294'	7,239		
Castle Peak	7,519'	1,461'		
Uteland Butte	7,929'	,874'		
Wasatch*	8,319'	8,264'		
TD	10,355'	10,300'		

*PROSPECTIVE PAY

The Wasatch and the Lower Green re primary objectives for oil/gas.

Base of Useable W

3. **BOP and Pressure Containme**

Depth Interval	BOP Equipment
0 – 3,300'	No pressure control required
3,300' TD	11" 5000# Ram Type BOP
	11" 5000# Annular BOP
Dr. ling speed to a	ccommodate choke and kill lines:



- Driving spool to accommodate choke and kill lines;
- Ancillary equipment and choke manifold rated at 5,000 psi. All BOP and BOPE tests will be in accordance with the requirements of onshore Order No. 2;
- The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in advance of all BOP pressure tests.
- BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up To operate most efficiently in this manner.

4. **Casing Program**

Hole Size	SETTING DEPTH		Casing	Casing	Casing					
	(FROM) (TO)		(FROM) (TO) Siz		<u>) Size Weigl</u>		<u>Grade</u>	Thread	Condition	
26"	Surface	80'	16"	65#						
12 1/4"	Surface	3,300'	9 5/8"	36#	J or K 55	ST&C	New			
8 3/4"	Surface	TD	5 ½"	17#	P-110	LT&C	New			

5. <u>Cementing Program</u>

16" Conductor Casing	Grout
9 5/8" Surface Casing	Lead: 500 sx Halliburton Light Premium with additives
	mixed at 11.0 ppg (yield = $3.16 \text{ ft}^3/\text{sx}$) circulated to surface
	with 75% excess. TOC @ Surface
	Tail: 210 sx Halliburton Premium Plus cement with
	additives mixed at 14.8 ppg (yield = $1.36 \text{ ft}^3/\text{sx}$), calculated
	hole volume with 75% excess. TOC @ 2,800'
5 ½" Production Casing	Lead: 660 sx Tuned Light cement with additives mixed at
	11.0 ppg (yield = $2.31 \text{ ft}^3/\text{sx}$). TOC @ $2,800$ '
	Tail: 960 sx Halliburton Econocem cement with additives
	mixed at 13.5 ppg (yield = $1.42 \text{ ft}^3/\text{sx}$). Top of cement to
	be determined by log and sample evaluation; estimated TOC
	@ 6,794'

6. <u>Mud Program</u>

<u>Interval</u>	Weight	<u>Viscosity</u>	Fluid Loss (API filtrate)	Remarks
0' - 80'	8.3 – 8.8	26 – 36	NC	reshwater Spud Mud Fluid System
80' – 3,300'	8.3 – 8.8	26 – 36	Y Me	Freshwater Spud Mud Fluid System
3,300' – TD	8.6 – 9.6	42.52	20 cc or less	DAP Polymer Fluid System

Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at vell ite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce forque and drag.

7. Testing, Logging and Core Programs



Cores	A 60' core is anticipated in the Uteland Butte formation from 5,850'-5,910
Testing	None anticipated; drill stem tests may be run on shows of interest;
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;
Surveys	MWD as needed to land wellbore;
Logging	DIL-GR-SP, FDC-CNL-GR-CALIPER-Pe-Microlog, Sonic-GR (all TD to surface).
	FMI & Sonic Scanner to be run at geologist's discretion.

8. Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 5141 psi* and maximum anticipated surface pressure equals approximately 2875 psi** (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

^{*}Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

^{**}Maximum surface pressure = A - (0.22 x TD)

Bill Barrett Corporation **Drilling Program** 16-23D-37 BTR Duchesne County, Utah

9. **Auxiliary Equipment**

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
- b) Inside BOP or stab-in valve (available on rig floor)
- c) Safety valve(s) and subs to fit all string connections in use Mud monitoring will be visually observed

Location and Type of Water Supply 10.

Water for the drilling and completion will be trucked from the Duchesne City Culinary Water Dock located in Sec. 1, T4S, R5W water right number 43-180.

11. **Drilling Schedule**

Returned Unapproved



LAKE CANYON & BLACK TAIL RIDGE CEMENT VOLUMES

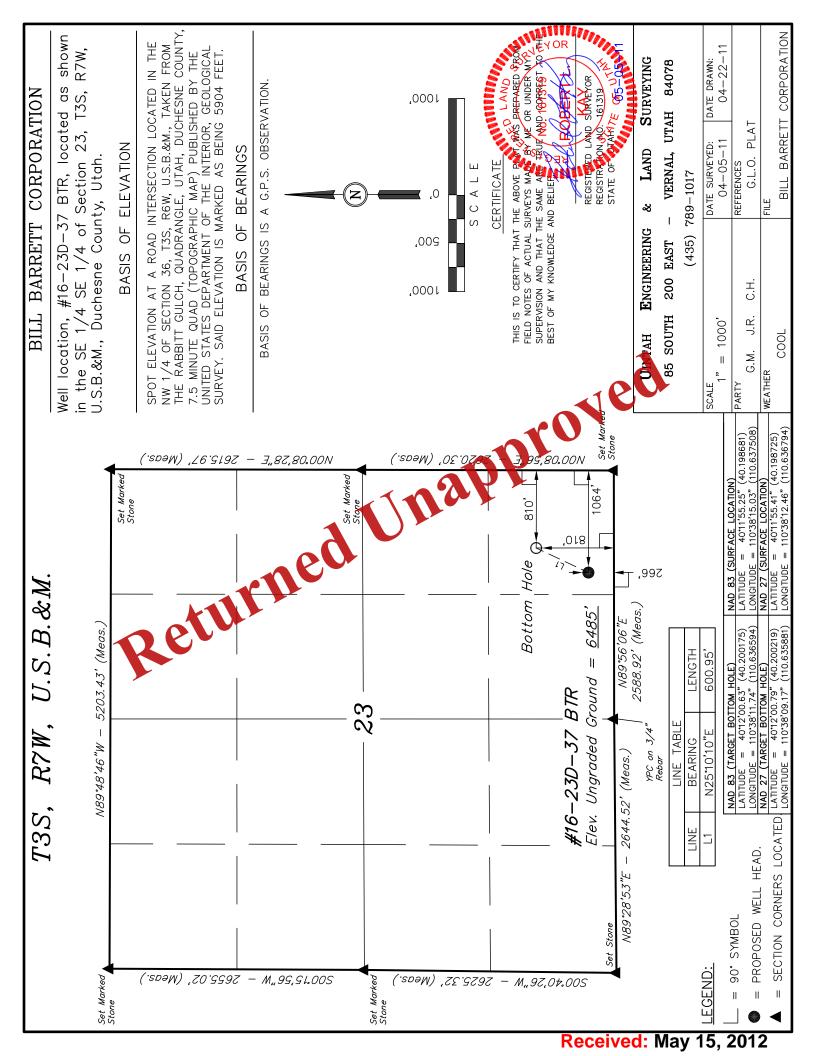
Surface Hole Data:		<u>Calculated Data:</u>	
Total Depth:	3,300'	Lead Volume:	1534.6 ft ³
Top of Cement:		Lead Fill:	2,800'
OD of Hole:	12.250"	Tail Volume:	274.0 F
OD of Casing:	9.625"	Tail Fill:	500'
Lead Yield:		# SK's Lead:	500
	,	# SK's Lead:	500
% Excess: Top of Lead:			
	<u> </u>		
Tail Yield: % Excess:		# SK's Tail:	210

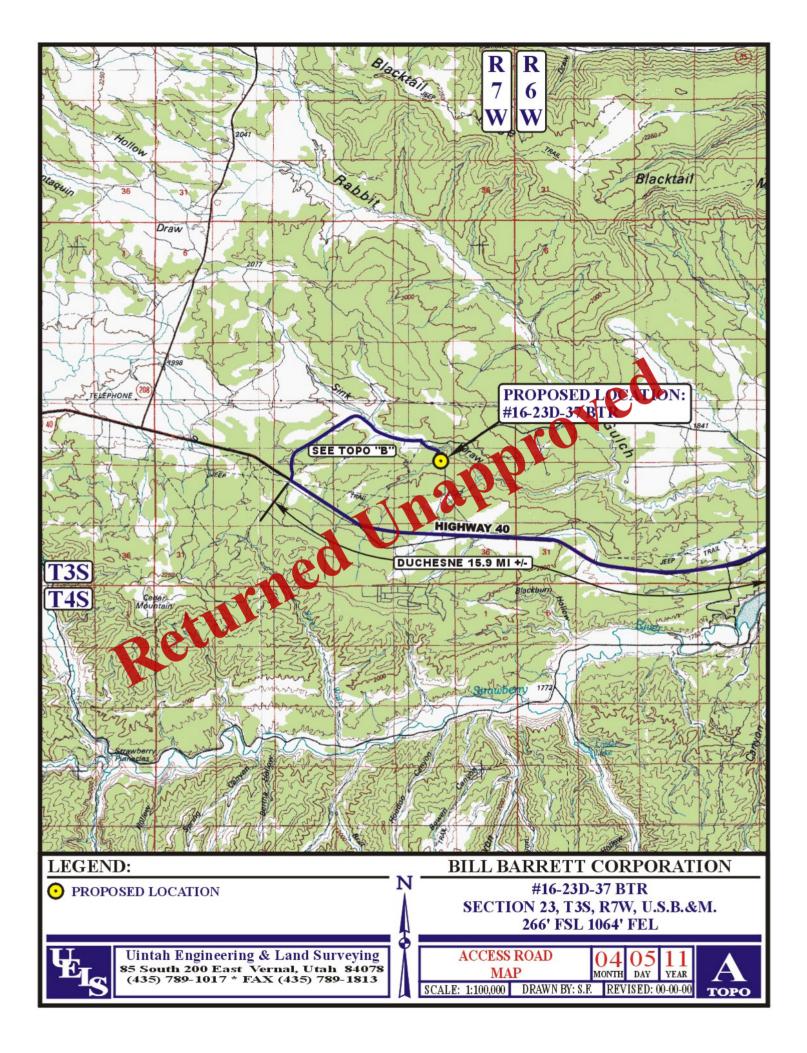
Production Hole Data	<u>a:</u>		Calculated Data:		
Total Depth:	10,355'		Lead Volume:	1513.3	ft³
Top of Cement:	2,800'		Lead Fill:	3,994'	
Top of Tail:	6,794'		Tail Volume:	1349.4	ft³
OD of Hole:	8.750"		Tail Fill:	3,561'	
OD of Casing:	5.500"				
Cement Data:			Calculated # of	Sacks:	
Cement Data: Lead Yield:	2.31	ft³/sk	Calculated # of # SK's Lead:	<u>660</u>	Ī
	2.01	ft³/sk ft³/sk		<u> </u>	

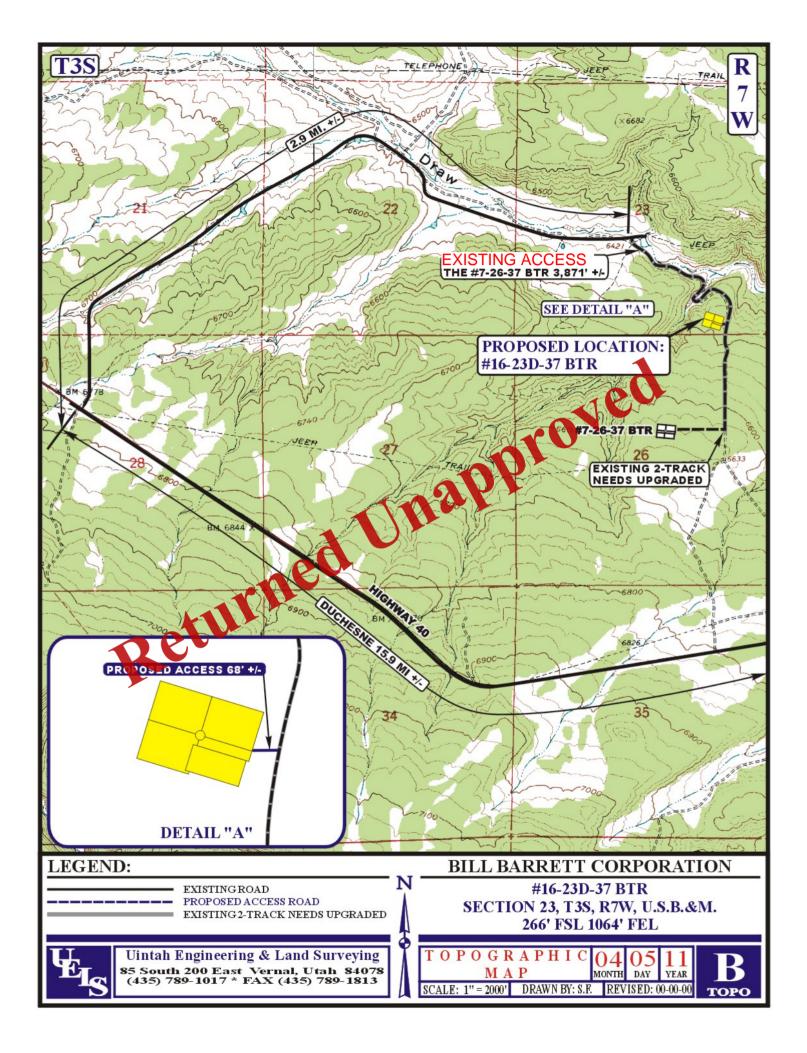
16-23D-37 BTR Proposed Cementing Program

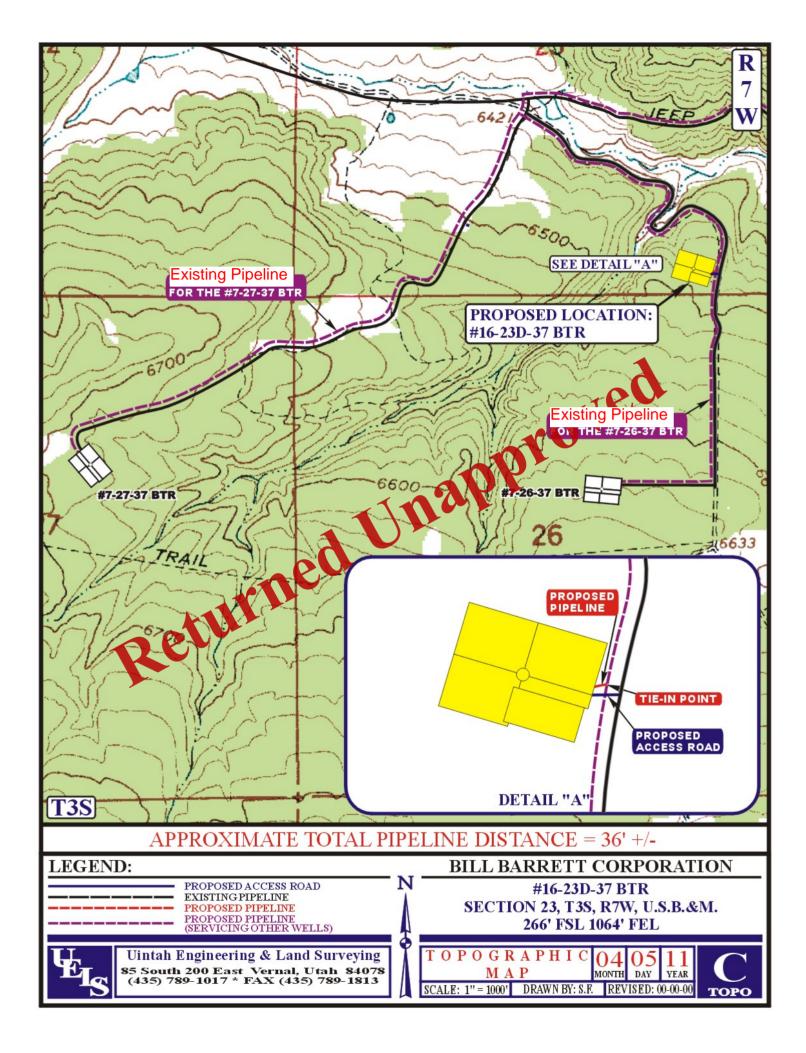
b Recommendation		Sur	face Casii
Lead Cement - (2800' - 0')			
Halliburton Light Premium	Fluid Weight:	11.0	lbm/gal
5.0 lbm/sk Silicalite Compacted	Slurry Yield:	3.16	ft ³ /sk
0.25 lbm/sk Kwik Seal	Total Mixing Fluid:	19.48	Gal/sk
0.125 lbm/sk Poly-E-Flake	Top of Fluid:	0'	
2.0% Bentonite	Calculated Fill:	2,800'	
	Volume:	273.30	bbl
	Proposed Sacks:	500	sks
Tail Cement - (TD - 2800')			1
Premium Cement	Fluid Weight:	14.8	lbr /gal
2.0% Calcium Chloride	Slurry Yield:	1.36	ft³/sk
	Total Mixing Fluid:	6.37	Gal/sk
	Top of Flaid:	2,800'	•
	Calculated Fill:	500'	
	Volume:	48.80	bbl
	Proposed Sacks:	210	sks

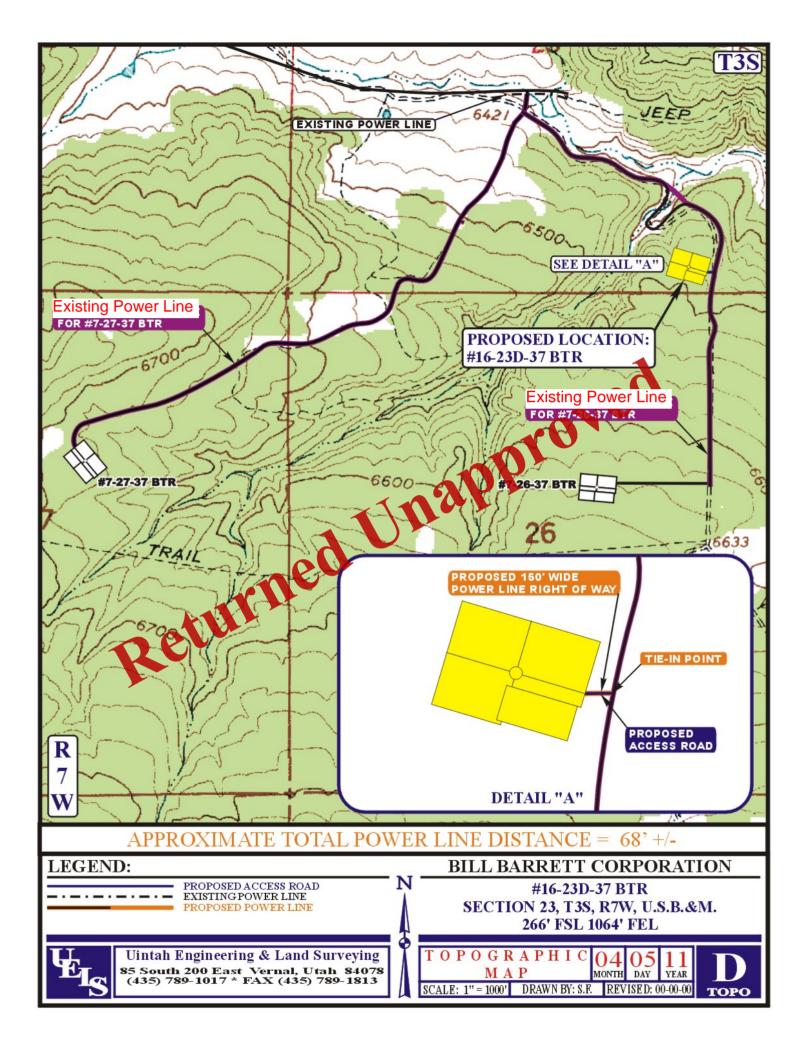
Job Recommendation		Produc	tion Casing
Lead Cement - (6794) 2800)			
Tuned Light ^{Ti} System	Fluid Weight: Slurry Yield:		lbm/gal ft³/sk
Retur	Total Mixing Fluid:		, Gal/sk
	Top of Fluid:	2,800'	
	Calculated Fill:	3,994'	
	Volume:	269.51	bbl
	Proposed Sacks:	660	sks
Tail Cement - (10355' - 6794')			
Econocem TM System	Fluid Weight:	13.5	lbm/gal
0.125 lbm/sk Poly-E-Flake	Slurry Yield:	1.42	ft ³ /sk
1.0 lbm/sk Granulite TR 1/4	Total Mixing Fluid:	6.61	Gal/sk
	Top of Fluid:	6,794'	
	Calculated Fill:	3,561'	
	Volume:	240.31	bbl
	Proposed Sacks:	960	sks













Scan Method: Closest Approach 3D Error Surface: Elliptical Conic

COMPANY DETAILS: BILL BARRETT CORP

Calculation Method: Minimum Curvature

Error System: ISCWSA

Warning Method: Error Ratio

SITE DETAILS: 16-23D-37 BTR Blacktail Ridge

> Site Latitude: 40° 11' 55.410 N Site Longitude: 110° 38' 12.458 W

Positional Uncertainity: 0.0 Convergence: 0.55 Local North: True

WELL DETAILS: 16-23D-37 BTR

Ground Level: 6485.0

Longitude 110° 38' 12.458 W +N/-S +E/-W Northing Easting Latittude Slot 0.0 680594.98 40° 11' 55.410 N 0.0 2241118.95

WELLBORE TARGET DETAILS (LAT/LONG)

+N/-S TVD +E/-W Latitude Longitude Shape

Rectangle (Sides: L200.0 W200.0) 16-23D-37 BTR 3PT MKR 7039.0 544.2 255.0 40° 12' 0.788 N 110° 38' 9.172 W 16-23D-37 BTR PBHL 110° 38' 9.172 W 544.2 255.0 40° 12' 0.788 N Rectangle (Sides: L200.0 W200.0) 10300.0

SECTION DETAILS +N/-S +E/-W Sec MD Inc Azi TVD DLeg **TFace VSec** Target 0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 0.0 3300.0 2 0.0 0.00 3300.0 0.00 0.00 0.0 0.00 0.0 3 4061.4 11.42 25.11 4056.3 68.5 32.1 1.50 25.11 75.6 4 0.00 6332.7 11.42 25.11 6282.7 475.7 222.9 0.00 525.4 5 7094.0 0.00 0.00 7039.0 544.2 255.0 1.50 180.00 601.0 16-23D-37 BTR 3PT MKF 16-23D-37 BTR PBHL 10355.0 10300.0 544.2 255.0 0.00 0.00 0.00 0.00 601.0

FORMATION TOP DETAILS TVDPath **MDPath** Formation

3489.0 3489.1 Green River Mahogany TGR3 4269.0 4278.3 5808 6 5769 0 6639.0 Douglas Creek 3PT MKR 7039.0 Black Shale Facies Castle Peak Uteland Butte 8014.0 CR 1 Wasatch 8539.0 CR 2

8484.0 CR 3 CR 4 8839.0 8894.0 9179.0 9124.0 9450.0 9505.0 CR 4A 9630.0 CR 5 9825.0 CR 6

9575.0 9770.0 10005.0 10060.0 CR 7

CASING DETAILS

No casing data is available

CR 3

CR 4

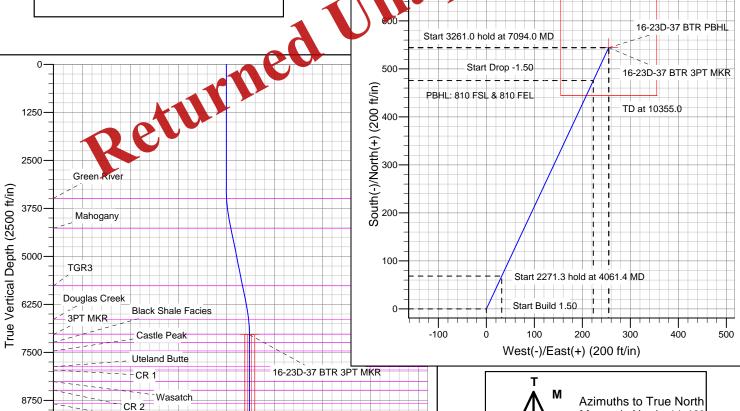
CR 5

-2500

CR 7 CR 6

-3750

10000



16-23D-37 BTR PBHI

2500

3750

5000

1250

Vertical Section at 25.11° (2500 ft/in)

Azimuths to True North Magnetic North: 11.46°

Magnetic Field Strength: 52179.6snT Dip Angle: 65.79° Date: 4/20/2012 Model: IGRF2010

BILL BARRETT CORP

DUCHESNE COUNTY, UT (NAD 27) 16-23D-37 BTR

Standard Planning Report
20 April, 2012

Planning Report

Compass Database:

Design:

Company: **BILL BARRETT CORP**

Project: DUCHESNE COUNTY, UT (NAD 27) Site: 16-23D-37 BTR Well: 16-23D-37 BTR Wellbore: 16-23D-37 BTR

Local Co-ordinate Reference: TVD Reference:

MD Reference: North Reference: **Survey Calculation Method:** Well 16-23D-37 BTR

KB @ 6501.0ft (Original Well Elev) KB @ 6501.0ft (Original Well Elev)

Minimum Curvature

Design #1 Project DUCHESNE COUNTY, UT (NAD 27)

US State Plane 1927 (Exact solution) Map System:

NAD 1927 (NADCON CONUS) Geo Datum:

Utah Central 4302 Map Zone:

System Datum: Ground Level

16-23D-37 BTR Site

Northing: 680,594.98 ft Site Position: Latitude: 40° 11' 55.410 N From: Lat/Long Easting: 2,241,118.95ft Longitude: 110° 38' 12.458 W **Position Uncertainty:** 0.0 ft Slot Radius: **Grid Convergence:** 0.55 °

Well 16-23D-37 BTR

Well Position +N/-S 0.0 ft Northing: 680,594.98 ft Latitude: +E/-W 0.0 ft Easting: 2,241,118.95 ft Longitude

40° 11' 55.410 N 110° 38' 12.458 W

Position Uncertainty 0.0 ft Wellhead Elevation:

6,485.0 ft

Wellbore 16-23D-37 BTR Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) 4/20/2012 IGRF2010 65.79 52,180

Design Design #1 Depth From (TVD)
(ft) **Audit Notes:** Version: PLAN Tie On Depth: 0.0 Vertical Section: +N/-S +E/-W Direction

(ft) (ft) (°) 0.0 0.0 25.11

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,061.4	11.42	25.11	4,056.3	68.5	32.1	1.50	1.50	0.00	25.11	
6,332.7	11.42	25.11	6,282.7	475.7	222.9	0.00	0.00	0.00	0.00	
7,094.0	0.00	0.00	7,039.0	544.2	255.0	1.50	-1.50	0.00	180.00	16-23D-37 BTR 3PT
10,355.0	0.00	0.00	10,300.0	544.2	255.0	0.00	0.00	0.00	0.00	16-23D-37 BTR PBHI

Planning Report

Database: Compass

Company: BILL BARRETT CORP

Project: DUCHESNE COUNTY, UT (NAD 27)
Site: 16-23D-37 BTR

 Well:
 16-23D-37 BTR

 Wellbore:
 16-23D-37 BTR

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well 16-23D-37 BTR

KB @ 6501.0ft (Original Well Elev) KB @ 6501.0ft (Original Well Elev)

True

anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0		0.0	0.00	0.00	0.00
					0.0				
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
								0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
0.008	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
4 000 0	0.00	0.00	4 000 0	0.0	0.0	0.0	000	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0		0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	00	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00		1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2 100 0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2200	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0,00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0 00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
		0.00							
2,700.0	0.00		2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,890.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	1.50	25.11	3,400.0	1.2	0.6	1.3	1.50	1.50	0.00
0.400 :	2.27		0.400.0		2.2		4 = 0	4.50	0.00
3,489.1	2.84	25.11	3,489.0	4.2	2.0	4.7	1.50	1.50	0.00
Green River									
3,500.0	3.00	25.11	3,499.9	4.7	2.2	5.2	1.50	1.50	0.00
3,600.0	4.50	25.11	3,599.7	10.7	5.0	11.8	1.50	1.50	0.00
3,700.0	6.00	25.11	3,699.3	18.9	8.9	20.9	1.50	1.50	0.00
3,800.0	7.50	25.11	3,798.6	29.6	13.9	32.7	1.50	1.50	0.00
3,000.0	7.50	25.11	3,790.0	29.0	13.9	34.1	1.50	1.50	0.00
3,900.0	9.00	25.11	3,897.5	42.6	20.0	47.0	1.50	1.50	0.00
4,000.0	10.50	25.11	3,996.1	57.9	27.1	64.0	1.50	1.50	0.00
4,061.4	11.42	25.11	4,056.3	68.5	32.1	75.6	1.50	1.50	0.00
4,100.0	11.42	25.11	4,094.2	75.4	35.3	83.3	0.00	0.00	0.00
4,200.0	11.42	25.11	4,192.2	93.3	43.7	103.1	0.00	0.00	0.00
4,278.3	11.42	25.11	4,269.0	107.4	50.3	118.6	0.00	0.00	0.00
	11.72	20.11	1,200.0	707.4	00.0	710.0	0.00	0.00	3.00
Mahogany									
4,300.0	11.42	25.11	4,290.2	111.3	52.1	122.9	0.00	0.00	0.00
4,400.0	11.42	25.11	4,388.3	129.2	60.5	142.7	0.00	0.00	0.00
4,500.0	11.42	25.11	4,486.3	147.1	68.9	162.5	0.00	0.00	0.00
4,600.0	11.42	25.11	4,584.3	165.1	77.3	182.3	0.00	0.00	0.00
4,700.0	11.42	25.11	4,682.3	183.0	85.7	202.1	0.00	0.00	0.00
4,800.0	11.42	25.11	4,780.3	200.9	94.1	221.9	0.00	0.00	0.00

Planning Report

Database: Compass

Company: BILL BARRETT CORP

Project: DUCHESNE COUNTY, UT (NAD 27)

 Site:
 16-23D-37 BTR

 Well:
 16-23D-37 BTR

 Wellbore:
 16-23D-37 BTR

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well 16-23D-37 BTR

KB @ 6501.0ft (Original Well Elev) KB @ 6501.0ft (Original Well Elev)

True

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,900.0 5,000.0 5,100.0	11.42 11.42 11.42	25.11 25.11 25.11	4,878.4 4,976.4 5,074.4	218.9 236.8 254.7	102.5 110.9 119.3	241.7 261.5 281.3	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
5,200.0 5,300.0 5,400.0 5,500.0 5,600.0	11.42 11.42 11.42 11.42 11.42	25.11 25.11 25.11 25.11 25.11	5,172.4 5,270.4 5,368.5 5,466.5 5,564.5	272.6 290.6 308.5 326.4 344.4	127.7 136.1 144.6 153.0 161.4	301.1 320.9 340.7 360.5 380.3	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
5,700.0 5,800.0 5,808.6	11.42 11.42 11.42	25.11 25.11 25.11	5,662.5 5,760.5 5,769.0	362.3 380.2 381.8	169.8 178.2 178.9	400.1 419.9 421.6	0.00 0.00 0.60	0.00	0.00 0.00 0.00
TGR3						_			
5,900.0 6,000.0	11.42 11.42	25.11 25.11	5,858.6 5,956.6	398.2 416.1	186.6 195.0	439.7 459.5	0.00	0.00 0.00	0.00 0.00
6,100.0 6,200.0 6,300.0 6,332.7 6,400.0	11.42 11.42 11.42 11.42 10.41	25.11 25.11 25.11 25.11 25.11	6,054.6 6,152.6 6,250.6 6,282.7 6,348.8	434.0 451.9 469.9 475.7 487.3	203.4 21.8 20.2 229.9 228.3	499.1 518.9 525.4 538.1	0.00 0.00 0.00 0.00 1.50	0.00 0.00 0.00 0.00 -1.50	0.00 0.00 0.00 0.00 0.00
6,500.0 6,600.0 6,693.3	8.91 7.41 6.01	25.11 25.11 25.11	6,447.4 6,546.3 6,639.0	512.5 515.3 525.2	235.4 241.5 246.1	554.9 569.1 580.0	1.50 1.50 1.50	-1.50 -1.50 -1.50	0.00 0.00 0.00
6,700.0 6,800.0	ek 5.91 4.41	25.11 25.11	6,645.7 6,745.3	525.8 534.0	246.4 250.2	580.7 589.7	1.50 1.50	-1.50 -1.50	0.00 0.00
6,900.0 7,000.0 7,094.0	2.01 1.4 0.00	25.11 25.11 0.00	6,845.0 6,945.0 7,039.0	539.8 543.2 544.2	252.9 254.5 255.0	596.1 599.8 601.0	1.50 1.50 1.50	-1.50 -1.50 -1.50	0.00 0.00 -26.70
3PT MKR									
7,100.0 7,200.0	0.00	0.00 0.00	7,045.0 7,145.0	544.2 544.2	255.0 255.0	601.0 601.0	0.00 0.00	0.00 0.00	0.00 0.00
7,294.0 Black Shale	0.00	0.00	7,239.0	544.2	255.0	601.0	0.00	0.00	0.00
7,300.0 7,400.0 7,500.0 7,519.0	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	7,245.0 7,345.0 7,445.0 7,464.0	544.2 544.2 544.2 544.2	255.0 255.0 255.0 255.0	601.0 601.0 601.0 601.0	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
7,600.0 7,700.0 7,800.0 7,900.0 7,929.0	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	7,545.0 7,645.0 7,745.0 7,845.0	544.2 544.2 544.2 544.2	255.0 255.0 255.0 255.0	601.0 601.0 601.0 601.0	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
7,929.0 Uteland Butt		0.00	7,874.0	544.2	255.0	601.0	0.00	0.00	0.00
8,000.0 8,014.0 CR 1	0.00 0.00	0.00 0.00	7,945.0 7,959.0	544.2 544.2	255.0 255.0	601.0 601.0	0.00 0.00	0.00 0.00	0.00 0.00
8,100.0 8,200.0 8,300.0	0.00 0.00 0.00	0.00 0.00 0.00	8,045.0 8,145.0 8,245.0	544.2 544.2 544.2	255.0 255.0 255.0	601.0 601.0 601.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
8,319.0 Wasatch 8,400.0	0.00	0.00	8,264.0 8,345.0	544.2 544.2	255.0 255.0	601.0	0.00	0.00	0.00

Planning Report

Database: Compass

Design:

Company: **BILL BARRETT CORP**

Project: DUCHESNE COUNTY, UT (NAD 27) Site: 16-23D-37 BTR Well: 16-23D-37 BTR Wellbore:

16-23D-37 BTR Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well 16-23D-37 BTR

KB @ 6501.0ft (Original Well Elev) KB @ 6501.0ft (Original Well Elev)

	Design #1								
anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,500.0 8,539.0	0.00 0.00	0.00 0.00	8,445.0 8,484.0	544.2 544.2	255.0 255.0	601.0 601.0	0.00 0.00	0.00 0.00	0.00 0.00
CR 2									
8,600.0	0.00	0.00	8,545.0	544.2	255.0	601.0	0.00	0.00	0.00
8,700.0 8,800.0 8,894.0	0.00 0.00 0.00	0.00 0.00 0.00	8,645.0 8,745.0 8,839.0	544.2 544.2 544.2	255.0 255.0 255.0	601.0 601.0 601.0	0.00 0.00 0.00	0.00 0.00 0 00	0.00 0.00 0.00
CR 3									
8,900.0 9,000.0	0.00 0.00	0.00 0.00	8,845.0 8,945.0	544.2 544.2	255.0 255.0	601.0 601.0	0.00 0.00	0.00	0.00 0.00
9,100.0 9,179.0	0.00 0.00	0.00 0.00	9,045.0 9,124.0	544.2 544.2	255.0 255.0	601.0 601.0	0.00	0.00 0.00	0.00 0.00
CR 4									
9,200.0 9,300.0 9,400.0	0.00 0.00 0.00	0.00 0.00 0.00	9,145.0 9,245.0 9,345.0	544.2 544.2 544.2	255.0 255.0 255.0	601.0 601.0 601.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
9,500.0 9,505.0	0.00 0.00	0.00 0.00	9,445.0 9,450.0	544.2 544.2	2/50 255.0	601.0 601.0	0.00 0.00	0.00 0.00	0.00 0.00
CR 4A									
9,600.0 9,630.0	0.00 0.00	0.00 0.00	9,545.0 9,57 5 .0	544.2 544.2	255.0 255.0	601.0 601.0	0.00 0.00	0.00 0.00	0.00 0.00
CR 5									
9,700.0	0.00	0.00	9,645.0	544.2	255.0	601.0	0.00	0.00	0.00
9,800.0 9,825.0	0.00 0,00	0.00	9,745.0 9,770.0	544.2 544.2	255.0 255.0	601.0 601.0	0.00 0.00	0.00 0.00	0.00 0.00
CR 6									
9,900.0 10,000.0 10,060.0	0.00 0.00 0.00	0.00 0.00 0.00	9,845.0 9,945.0 10,005.0	544.2 544.2 544.2	255.0 255.0 255.0	601.0 601.0 601.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
CR 7									
10,100.0 10,200.0 10,300.0 10,355.0	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	10,045.0 10,145.0 10,245.0 10,300.0	544.2 544.2 544.2 544.2	255.0 255.0 255.0 255.0	601.0 601.0 601.0 601.0	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00

Planning Report

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Company: BILL BARRETT CORP

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 Well:
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 Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
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Survey Calculation Method:

Well 16-23D-37 BTR

KB @ 6501.0ft (Original Well Elev) KB @ 6501.0ft (Original Well Elev)

True

4,278.3 5,808.6 6,693.3 7,094.0	3,489.0 Green River 4,269.0 Mahogany 5,769.0 TGR3 6,639.0 Douglas Creek 7,039.0 3PT MKR		Lithology	0.00 0.00 0.00	
5,808.6 6,693.3 7,094.0	5,769.0 TGR3 6,639.0 Douglas Creek			0.00	
6,693.3 6 7,094.0	6,639.0 Douglas Creek	4			
7,094.0		(
	7,039.0 3PT MKR			0.00	
7,294.0				0.00	
	7,239.0 Black Shale Fa	acies		0.00	4
7,519.0	7,464.0 Castle Peak			0.00	
7,929.0	7,874.0 Uteland Butte			0.00	
8,014.0	7,959.0 CR 1			0.0	
8,319.0	8,264.0 Wasatch		_ 4	0.00	
8,539.0	8,484.0 CR 2			0.00	
8,894.0	8,839.0 CR 3			0.00	
9,179.0	9,124.0 CR 4			0.00	
9,505.0	9,450.0 CR 4A	4	VP.	0.00	
9,630.0	9,575.0 CR 5			0.00	
9,825.0	9,770.0 CR 6			0.00	
10,060.0	0,005.0 CR 7			0.00	
		dunai		0.00	

SURFACE DAMAGE AND RIGHT-OF-WAY SETTLEMENT AGREEMENT

This Agreement, made and entered into this the 1st day of June, 2011, by and between Deep Creek Investments, 2400 Sunnyside Avenue, Salt Lake City, UT 84108-1450, ("Surface Owner"), and, Bill Barrett Corporation, 1099 18th Street, Suite 2300, Denver CO 80202, ("BBC").

WITNESSETH THAT:

WHEREAS, BBC owns undivided interests in certain oil and gas leases ("leases") covering and affecting Section 23, Township 3 South, Range 7 West, USM, of Duchesne County, Utah; and,

WHEREAS, such leases grant to BBC the right and privilege of ingress, egress, exploring, drilling, mining, operating for, producing and owning oil and gas and all other products produced therewith, together with the right to make surveys on said lands, lay pipelines, construct roads and bridges, dig canals, build power stations, telephone lines, employee houses and other structures on said lands, necessary or useful in BBC's operations; and,

WHEREAS, BBC, pursuant to its rights under the Leases, intends to drill the #16-23D-37 BTR well at a legal drill-site location in the SE1/4SE1/4 of Section 23, Township 3 South, Range 7 West, USM, Duchesne County, Utah; and,

WHEREAS, Surface Owner warrants ownership to the surface of at least specific portions of the <u>SE1/4SE1/4</u> of Section 23, Township 3 South, Range 7 West, USM, <u>Duchesne County</u>, <u>Utah</u>, and which warranted ownership is further subject to all oil, gas and other mineral rights which are reserved for the use and benefit of the owners thereof; and,

WHEREAS, BBC has agreed to reimburse Surface Owner for actual damages and injuries to all crops, timber, fences and other improvements located on the surface which results from BBC's operations hereunder, provided that BBC shall not be held liable or responsible for acts of providence or occurrences beyond BBC's control, such payment to be made upon commencement of operations to construct the wellsite pad; so,



Any topsoil which is removed by BBC on Surface Owner's land will be stockpiled at the drillsite and will be redistributed on the drillsite upon completion of all operations, and the land reseeded with grasses and/or native plants by BBC upon written request by Surface Owner. All mud pits will be filled and material and debris will be removed from the drillsite upon completion of operations. BBC shall remove from the lands covered hereby, at any time during the term hereof or within six (6) months after the plugging and abandonment of the well drilled pursuant to this Agreement, any or all structures, pipes, equipment and other facilities placed on, over, under, through and across any lands covered hereby, excepting fences, culverts, and other land improvements required by the Surface Owner, and title thereto shall be vested in BBC at all times, and shall in no event be considered or construed as fixtures thereto.

BBC shall maintain all roads used pursuant to this Agreement and shall install culverts where necessary to insure adequate drainage from all roads.

BBC shall repair any fences and gates damaged by them during the course of their operations on the lands subject to this Agreement

Surface Owner and their heirs or assigns shall have full access and use of the road built pursuant to this Agreement.

This Agreement shall inure to the benefit of the parties hereto, their heirs, successors and assigns and shall be a burden running with the land.

This Agreement may be executed in any number of counterparts and all such counterparts shall be deemed to constitute a single Agreement and the execution of one counterpart by any party hereto shall have the same force and effect as if said party had signed all other counterparts.

Page 2 of 3 Received: May 15, 2012

IN WITNESS WHEREOF, the parties have executed this Surface Damage Settlement Agreement effective as of the 1st day of June, 2011.

By: By: By: Clint W. Turner As Agent for Bill Barrett Corporation
STATE OF UTAH)
COUNTY OF)
On the 1st day of June 2011, personally appeared before me Lee M. Smith, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purpose and consideration therein expressed.
Notary Public Residing at: 475 E 200 5 SLC W 84111
ANDREW WILCOX Notary Public
State of Utah Comm. No. 582638 My Comm. Expires May 3, 2014
State of Utah Comm. No. 582638
State of Utah Comm. No. 582638 My Comm. Expires May 3, 2014
State of Utah Comm. No. 582638 My Comm. Expires May 3, 2014 STATE OF UTAH)



SURFACE USE PLAN

BILL BARRETT CORPORATION

16-23D-37 BTR Pad

SE SE, 266' FSL and 1,064' FEL, Sec. 23, T3S-R7W (surface hole) SE SE, 810' FSL and 810' FEL, Sec. 23, T3S-R7W (bottom hole) Duchesne County, Utah

The onsite inspection for this pad occurred on April 17, 2012. This is a new pad with a total of one proposed well. Plat changes and site specific stipulations requested at the onsite are reflected within this APD and summarized below.

- a) Construct diversion ditch as shown on Figure 1;
- b) Round corners 2, 6 & 8 to minimize fill slopes;

The excavation contractor would be provided with an approved copy of the surface use plan of operations before initiating construction.

1. Existing Roads:

- a. The proposed well site is located approximately 19.5 miles northwest of Duchesne, Utah. Maps and directions reflecting the route to the proposed well site are included (see Topographic maps A and B).
- b. The Utah Department of Transportation maintained Highway 40 would be utilized for 15.2 miles to the existing Duchesne County maintained Koch Road that yould be utilized for 2.9 miles to the existing BBC maintained 7-26-37 BTR access road and provides access to the planned new access road.
- Project roads would require routine year-round maintenance to provide year-round access. Maintenance would include inspections, reduction of ruts and holes, maintenance to keep water off the road, replacement of surfacing materials, and clearing of sediment blocking ditches and culverts. Should snow removal become necessary, roads would be cleared with a motor grader and snow would be stored along the down gradient side to prohibit runoff onto the road. Aggregate would be used as necessary to maintain a solid running surface and minimize dust generation.
- d. Vehicle operators would obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Travel would be limited to the existing access roads and proposed access road.
- e. The use of roads under State and Duchesne County Road Department maintenance are necessary to access the project area with no improvements proposed. No public road encroachments or pipeline crossings are associated with this well.

f. All existing roads would be maintained and kept in good repair during all phases of operation.

2. Planned Access Road:

- a. Approximately 68 feet of new access road trending west is planned from the existing 7-26-37 BTR access road. The existing 7-26-37 BTR access road continues an additional 3,871 feet to the existing Duchesne County maintained Koch Road (see Topographic Map B). The proposed access road crosses entirely private surface.
- b. The planned access road would be constructed to a 30-foot ROW width with an 18-foot travel surface. See section 12.d. below for disturbance estimates.
- c. New road construction and improvements of existing roads would typically require the use of motor graders, crawler tractors, 10-yard end dente trucks, and water trucks. The standard methodology for building new roads involves the use of a crawler tractor or track hoe to windrow the vegetation to one side of the road corridor, remove topsoil to the opposing side of the corridor, and rough-in the roadway. This is followed by a grader of bulletzer to establish barrow ditches and crown the road surface. Where sulverts are required, a track hoe or backhoe would trench the road and has all the culverts. Some hand labor would be required when installing and argoring culverts. Road base or gravel in some instances would be necessary and would be hauled in and a grader used to smooth the rupning surface.
- d. The poposed road would be constructed to facilitate drainage, control erosion and minimize visual impacts by following natural contours where practical. No indecessary side-casting of material would occur on steep slopes.
- A maximum grade of 10% would be maintained throughout the project with minimum cuts and fills, as necessary, to access the well.
- f. Excess rock from construction of the pad may be used for surfacing of the access road if necessary. Any additional aggregate necessary would be obtained from private or State of Utah lands in conformance with applicable regulations. Aggregate would be of sufficient size, type, and amount to allow all weather access and alleviate dust.
- g. Where topsoil removal is necessary, it would be windrowed (i.e. stockpiled/accumulated along the edge of the ROW and in a low row/pile parallel with the ROW) and re-spread over the disturbed area after construction and backfilling are completed. Vegetation removed from the disturbed area would also be re-spread to provide protection, nutrient recycling, and a seed source for reclamation.
- h. Turnouts are not proposed.

- i. No culverts and no low-water crossings are anticipated. Adequate drainage structures, where necessary, would be incorporated into the remainder of the road to prevent soil erosion and accommodate all-weather traffic.
- j. No cattle guards are anticipated at this time.
- k. Surface disturbance and vehicular travel would be limited to the approved location access road. Adequate signs would be posted, as necessary, to warn the public of project related traffic.
- All access roads and surface disturbing activities would conform to the appropriate standard, **no higher than necessary**, to accommodate their intended function adequately as outlined in the Bureau of Land Management and Forest Service publication: <u>Surface Operating Standards for Oil and Gas Exploration and Development</u>, Fourth Edition – Revised 2007.
- m. The operator would be responsible for all maintenance needs of the new access road.
- 3. <u>Location of Existing Wells (see One-Mile Radius Man)</u>
 - a. Following is a list of wells with turnectible ocations within a one-mile radius of the proposed pad:

i. water wells	none
ii. injection wells	none
iii. disposal wells	none
i drilling wells	none
v. temp shut-in wells	two
vi. producing wells	none
vii. abandoned wells	six

vi. producing wells vi. producing wells vii. abandoned wells 4. Location of Production Facilities

- a. Surface facilities would consist of a wellhead, separator, gas meter, combustor, (1) 500 gal methanol tank, (1) 500 glycol tank, (3) 500 bbl oil tanks, (1) 500 bbl water tank, (1) 500 bbl test tank, (1) 1000 gal propane tank, a pumping unit or Roto-flex unit or ESP or gas lift unit, electrical or with a natural gas or diesel fired motor, solar panels, solar chemical and methanol pumps and one trace pump. See attached proposed facility diagram.
- b. Most wells would be fitted with a pump jack or Roto-flex unit or ESP or gas lift to assist liquid production. The prime mover for pump jacks or Roto-flex units would be small (100 horsepower or less), electric motor or natural gas or diesel fired internal combustion engines. If a gas lift is installed, it would be set on a 10 ft x 25 ft pad and the prime mover would be a natural gas-fired internal combustion engine rated at 200 horsepower or less or an electric compressor of similar horsepower powered by electricity.

- c. The tank battery would be surrounded by a secondary containment berm of sufficient capacity to contain 1.1 times the entire capacity of the largest single tank and sufficient freeboard to contain precipitation. All loading lines and valves would be placed inside the berm surrounding the tank battery or would utilize catchment basins to contain spills. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil.
- d. Gas meter run(s) would be constructed and located on lease within 500 feet of the wellheads. Meter runs would be housed and/or fenced. As practicably feasible, meters would be equipped with remote telemetry monitoring systems. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
- e. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24 inches to 48 inches wide and is approximately 27 ft tall. Combustor placement would be on existing disturbance.
- f. Approximately 36 feet of pipeline corridor (see Topographic Map C) containing up to three lines (one gas pipeline up to 8 inch in diameter, one water line up to 4 inch in diameter and one residue line up to 4 inch in diameter) is proposed trending east to the existing 7-26-37 BTR pipeline corridor. Pipelines would be constructed of steel, polyethylene or fiberglass and would connect to the proposed pipeline servicing nearby BBC wells. The pipeline crosses entirely private surface.
- The new segment of gas pipeline would be surface laid within a 30 foot wide pipeline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates.
- h. Construction of the ROW would temporarily utilize the 30 foot disturbed width for the road for a total disturbed width of 60 foot for the road and pipeline corridors. The use of the proposed well site and access roads would facilitate the staging of the pipeline construction.
- i. Pipeline construction methods and practices would be planned and conducted by BBC with the objective of enhancing reclamation and fostering the reestablishment of the native plant community.
- j. All permanent above-ground structures would be painted a flat, non-reflective color, such as Beetle Green, to match the standard environmental colors. All facilities would be painted the designated color at the time of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.

- k. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 would be adhered to. Any modifications to proposed facilities would be reflected in the site security diagram submitted.
- 1. The site would require periodic maintenance to ensure that drainages are kept open and free of debris, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.

5. <u>Location and Type of Water Supply:</u>

a. Water for the drilling and completion would be trucked from any of the following locations:

Water Right No. and Application or Change No.	Applicant	Allocation	Date	Point of Diversion	Source
43-180	Duchesne City Water Service District	5 cfs	8/13/2004	Kingby Diversion Dam	Duchesne River
43-1202, Change a13837	Myton City	5.49 cfr and 3967 agree fee	. 21 1986	Knight Diversion Dam	Duchesne River
43-10444, Appln A57477	Duchesne County Upper County Water	cf	1994	Ditch at Source	Cow Canyon Spring
43-10446, Appln F57432	Country Upper Country Water	1.58 cfs	1994	Ditch at Source	Cow Canyon Spring
43-1273, Apple A 74, 2	J.J.N.P. Company	7 cfs	1946	Strawberry River	Strawberry River
43 127 Appln t36590	J.J.N.P. Company	4 cfs	6/03/2010	Strawberry River	Strawberry River
43-2505, Appln t37379	McKinnon Ranch Properties, LC	1.3 cfs	4/28/2011	Pumped from Sec, 17, T4SR6W	Water Canyon Lake
43-12415, Change A17215a	Peatross Ranch, LLC	1.89 cfs	09/2011	Dugout Pond	Strawberry River

- b. No new water well is proposed with this application.
- c. Should additional water sources be pursued they would be properly permitted through the State of Utah Division of Water Rights.
- d. Water use would vary in accordance with the formations to be drilled but would be up to approximately 5.41 acre feet for drilling and completion operations.

6. <u>Source of Construction Material:</u>

- a. The use of materials would conform to 43 CFR 3610.2-3.
- b. No construction materials would be removed from the lease or EDA area.
- c. If any additional gravel is required, it would be obtained from a local supplier having a permitted source of materials within the general area.

7. Methods of Handling Waste Disposal:

- a. All wastes associated with this application would be contained and disposed of utilizing approved facilities.
- b. The reserve pit would be constructed so as not to leak, break or allow any discharge.
- c. The reserve would be lined with 12 mil (minimum) thickness polyethylene nylon reinforced liner material. The liner(s) would overlap straw, dirt and/or bentonite if rock is encountered during excavation. The liner would overlap the pit walls and be covered with dirt and/or rocks to hold them in place. No trash, scrap pipe, or other materials that could puncture the liner would be discarded in the pit. A minimum of two feet of free board would be maintained between the maximum fluid level and the top of the reserve pit at all times.
- d. To deer live tock from entering the pit, the three sides exterior to the location would be fenced before drilling starts. Following the conclusion of drilling and outpletion activities, the fourth side would also be fenced.
- e. Drill cuttings would be contained in the pit and buried on-site for a period not to exceed six months, weather permitting
- f. Produced fluids from the well other than water would be decanted into steel test tank(s) until such time as construction of production facilities is completed. Any oil that may be accumulated would be transferred to a permanent production tank. Produced water may be used in further drilling and completion activities, evaporated in the pit, or would be hauled to one of the following state-approved disposal facilities:

Disposal Facilities

- 1. RNI Industries, Inc. Pleasant Valley Disposal Pits, Sec. 25, 26, 35 & 36, T4S-R3W
- 2. Pro Water LLC Blue Bench 13-1 Disposal Well (43-013-30971) NENE, Sec. 13, T3S-R5W
- 3. RN Industries, Inc. Bluebell Disposal Ponds, Sec. 2, 4 & 9, T2S-R2W
- 4. Water Disposal, Inc. Harmston 1-32-A1 Disposal Well (43-013-30224),

Disposal Facilities

UTR #00707, Sec. 32, T1S-R1W

- 5. Unified Water Pits Sec. 31, T2S-R4W
- 6. Iowa Tank Line Pits 8500 BLM Fence Road, Pleasant Valley
- 7. Western Water Solutions Sand Pass Ranch, Sections 9 and 10, T4S-R1W, permit #WD-01-2011
- g. Any salts and/or chemicals, which are an integral part of the drilling system, would be disposed of in the same manner as the drilling fluid.
- h. Any spills of oil, condensate, produced or frac water, drilling fluids, or other potentially deleterious substances would be recovered and either returned to its origin or disposed of at an approved disposal site, most likely in Ducheste, Utah.
- i. Chemicals on the EPA's Consolidated List of Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) may be used or stored in quantities over reportable quantities. In the course of drilling, BBC could potentially store and use diesel fuel, sand (silica), hydrochloric acid, and CO₂ gas, all described as nazardous substances in 40 CFR Part 302, Section 302.4, in quantities (Scheding 10,000 pounds. In addition, natural gas condensate and crude of an Emetiannol may be stored or used in reportable quantities. Small quantities of retail products (paint/spray paints, solvents {e.g., WD=0}, and borication oil) containing non-reportable volumes of hazardous substances may be stored and used on site at any time. No extremely hazardous substances, as defined in 40 CFR 355, would be used, produced stored, transported or disposed of in association with the drilling, testing or completion of the wells.
- Portable toilets and trash containers would be located onsite during drilling and completion operations. A commercial supplier would install and maintain portable toilets and equipment and would be responsible for removing sanitary waste. Sanitary waste facilities (i.e. toilet holding tanks) would be regularly pumped and their contents disposed of at approved sewage disposal facilities in Duchesne, and/or Uintah Counties, in accordance with applicable rules and regulations regarding sewage treatment and disposal. Accumulated trash and nonflammable waste materials would be hauled to an approved landfill once a week or as often as necessary. All debris and waste materials not contained in the trash containers would be cleaned up, removed from the construction ROW, well pad, or worker housing location, and disposed of at an approved landfill. Trash would be cleaned up everyday.
- k. Sanitary waste equipment and trash bins would be removed from the Project Area upon completion of access road or pipeline construction; following drilling and completion operations at an individual well pad; when worker housing is no longer needed; or as required.

- 1. A flare pit may be constructed a minimum of 110' from the wellhead(s) and may be used during completion work. In the event a flare pit proves to be unworkable, a temporary flare stack or open top tank would be installed. BBC would flow back as much fluid and gas as possible into pressurized vessels, separating the fluids from the gas. In some instances, due to the completion fluids utilized within the Project Area, it is not feasible to direct the flow stream from the wellbore through pressurized vessels. In such instances BBC proposes to direct the flow to the open top tanks until flow through the pressurized vessels is feasible. At which point the fluid would either be returned to the reserve pit or placed into a tank(s). The gas would be directed to the flare pit, flare stack (each with a constant source of ignition), or may be directed into the sales pipeline.
- m. Hydrocarbons would be removed from the reserve pit would as soon as practical. In the event immediate removal is not practical, the reserve pit would be lagged overhead or covered with wire or plastic mesh to protect migrating birds.

8. Ancillary Facilities:

- a. Garbage containers and portable toilets would be located on the well pad.
- b. On well pads where active drilling and completion is occurring, temporary housing would be provided on let at on for the well pad supervisor, geologist, tool pusher, and others that are required to be on location at all times. The well pad could include up to five single wide mobile homes or fifth wheel campers/trailers
- c. A surface powerline corridor 68 feet in length is proposed for installation by third party installer within a 150 foot wide powerline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates. The powerline crosses entirely private surface.

Well Site Layout:

- a. The well would be properly identified in accordance with 43 CFR 3162.6.
- b. The pad layout, cross section diagrams and rig layout are enclosed (see Figures 1 and 2).
- c. The pad and road designs are consistent with industry specifications.
- d. The pad has been staked at its maximum size of 400 feet x 300 feet with an inboard reserve pit size of 205 feet x 100 feet x 8 feet deep. See section 12.d below for disturbance estimates.
- e. Within the approved well pad location, a crawler tractor would strip whatever topsoil is present and stockpile it along the edge of the well pad for use during reclamation. Vegetation would be distributed along the sides of the well pad.

- f. Fill from pit excavation would be stockpiled along the edge of the pit and the adjacent edge of the well pad.
- g. Use of erosion control measures, including proper grading to minimize slopes, diversion terraces and ditches, mulching, terracing, riprap, fiber matting, temporary sediment traps, and broad-based drainage dips or low water crossings would be employed by BBC as necessary and appropriate to minimize erosion and surface runoff during well pad construction and operation. Cut and fill slopes would be constructed such that stability would be maintained for the life of the activity.
- h. All cut and fill slopes would be such that stability can be maintained for the life of the activity.
- i. Diversion ditches would be constructed, if necessary, around the well step prevent surface waters from entering the well site area.
- j. Water application may be implemented if necessary to minimize the amount of fugitive dust.
- k. All surface disturbing activities would be supervised by a qualified, responsible company representative who is a vare of the terms and conditions of the APD and specifications in the approved plans.

10. Plan for Restoration of the Surface:

- a. A site specific reclamation plan would be submitted, if requested, within 90 days of location construction to the surface managing agency.
- Site reclamation would be accomplished for portions of the well pad not required for the continued operation of the well on this pad within six months of completion, weather permitting.
- c. The operator would control noxious weeds along access road use authorizations and well site by spraying or mechanical removal, according to the Utah Noxious Weed Act and as set forth in the approved surface damage agreements.
- d. Rat and mouse holes would be filled and compacted from bottom to top immediately upon release of the drilling rig from location. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. The reserve pit would be allowed to dry prior to the commencement of backfilling work. No attempts would be made to backfill the reserve pit until it is free of standing water. Once dry, the liner would be torn and perforated before backfilling.
- e. The reserve pit and that portion of the location not needed for production facilities/operations would be recontoured to the approximate natural contours. Areas not used for production purposes would be backfilled and blended into the

surrounding terrain, reseeded and erosion control measures installed. Mulching, erosion control measures and fertilization may be required to achieve acceptable stabilization. Back slopes and fore slopes would be reduced as practical and scarified with the contour. The reserved topsoil would be evenly distributed over the slopes and scarified along the contour. Slopes would be seeded with the landowner specified seed mix.

f. Topsoil salvaged from the drill site and stored for more than one year would be placed at the location indicated on the well site layout drawing and graded to a depth optimum to maintain topsoil viability, seeded with the landowner prescribed seed mixture and covered with mulch for protection from wind and water erosion and to discourage the invasion of weeds.

11. Surface and Mineral Ownership:

- a. Surface ownership Deep Creek Investments (Allen Smith) 2400 Sunnyside Ave., Salt Lake City, UT 84108; 435-823 3232 or 435-725-3232
- b. Mineral ownership Ute Indian Tribe 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.

12. Other Information:

- a. Montgomery Archeological Consultants has conducted a Class III archeological survey. A copy of the report has been submitted under separate cover to the appropriate agencies by Montgomery as report 11-155 dated July 20, 2011.
- b. EBC would require that their personnel, contractors, and subcontractors to couply with Federal regulations intended to protect archeological and cultural resources.
- c. Project personnel and contractors would be educated on and subject to the following requirements:
 - No dogs or firearms within the Project Area.
 - No littering within the Project Area.
 - Smoking within the Project Area would only be allowed in off-operator
 active locations or in specifically designated smoking areas. All cigarette
 butts would be placed in appropriate containers and not thrown on the
 ground or out windows of vehicles; personnel and contractors would abide
 by all fire restriction orders.
 - Campfires or uncontained fires of any kind would be prohibited.
 - Portable generators used in the Project Area would have spark arrestors.

d. Disturbance estimates:

Approximate	Acreage Disturbance	es	
Well Pad		3.616	acres
Access	68 feet	0.029	acres
Pipeline	36 feet	0.005	acres
Powerline	68 feet	0.145	acres
	Total	3.795	acres



Bill Barrett Corporation Surface Use Plan 16-23D-37 BTR Duchesne County, UT

OPERATOR CERTIFICATION

Certification:

I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein would be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application and that bond coverage is provided under Bill Barrett Corporations federal nationwide bond. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

Executed this

day of May 201

Name:

Venessa Langmacher

Position Title:

Senior Permit Analyst

Address:

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303-312-8172

E-mail:

vlangmacher@billbarrett.orp.com Kary Eldredge Bill Barrett Corporation

Field Representative

1820 W Highway 40, Roosevelt, UT 84066

Address: Telephone:

435(725-3515 (office); 435-724-6789 (mobile)

E-mail:

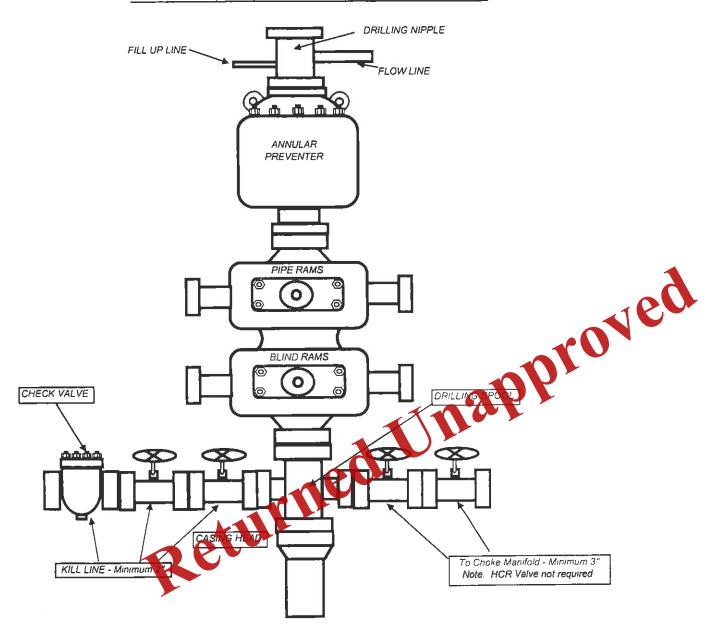
keldredge@billbarrettcorp.com

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angmacher, Senior Permit Analyst

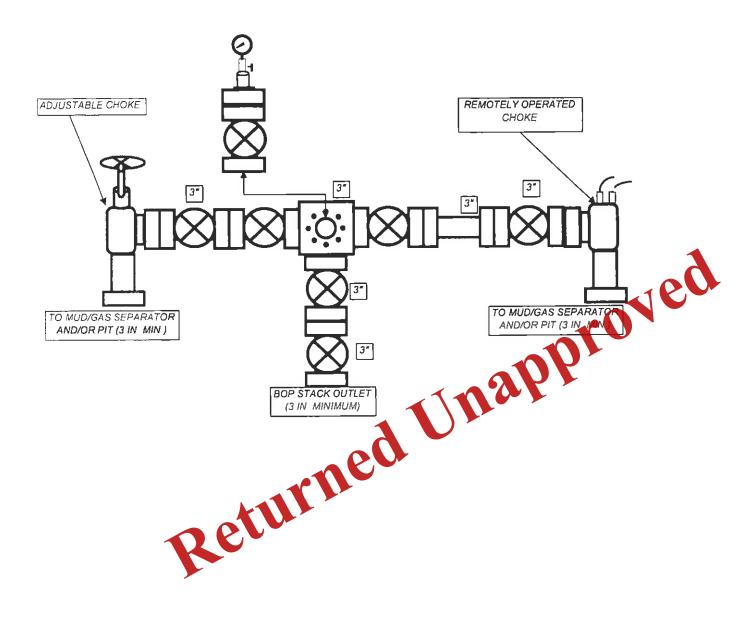
BILL BARRETT CORPORATION

TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER



BILL BARRETT CORPORATION

TYPICAL 5,000 p.s.i. CHOKE MANIFOLD





May 15, 2012

Ms. Diana Mason – Petroleum Technician State of Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 P. O. Box 145801 Salt Lake City, Utah 84114-5801

Re: Direction

Directional Drilling R649-3-11

Blacktail Ridge Area #16-23D-37 BTR Well

Surface: 266' FSL & 1,064' FEL, SESE, 23-T3S-R7W, USM Bottom Hole: 810' FSL & 810' FEL, SESE, 23-T3S-R7W, USM

Duchesne County, Utah

Dear Ms. Mason,

Pursuant to the filing of Bill Barrett Corporation's (1830) Application for Permit to Drill the above referenced well, we hereby submit this letter in accordance with Oil & Gas Conservation Rules R649-2, R649-3, R649-10 and R649-11, pertaining to the Location and Siting of Wells.

- The proposed location is within our Blacktail Ridge Area.
- BBC is permitting this well as a directional well in order to minimize surface disturbance. By locating the well at the surface location and directionally drilling from this location, LBC will be able to utilize the existing road and pipelines in the area.
- The well will be drilled under an Exploration and Development Agreement between the Ute Indian Tribe and Ute Distribution Corporation. Ute Energy, LLC owns a right to participate in this well.
 - BBC certifies that it is the working interest owner of all lands within 460 feet of the proposed well location, and together with Ute Energy, LLC, we own 100% of the working interest in these lands.

Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-11. Should you have any questions or need further information, please contact me at 303-312-8544.

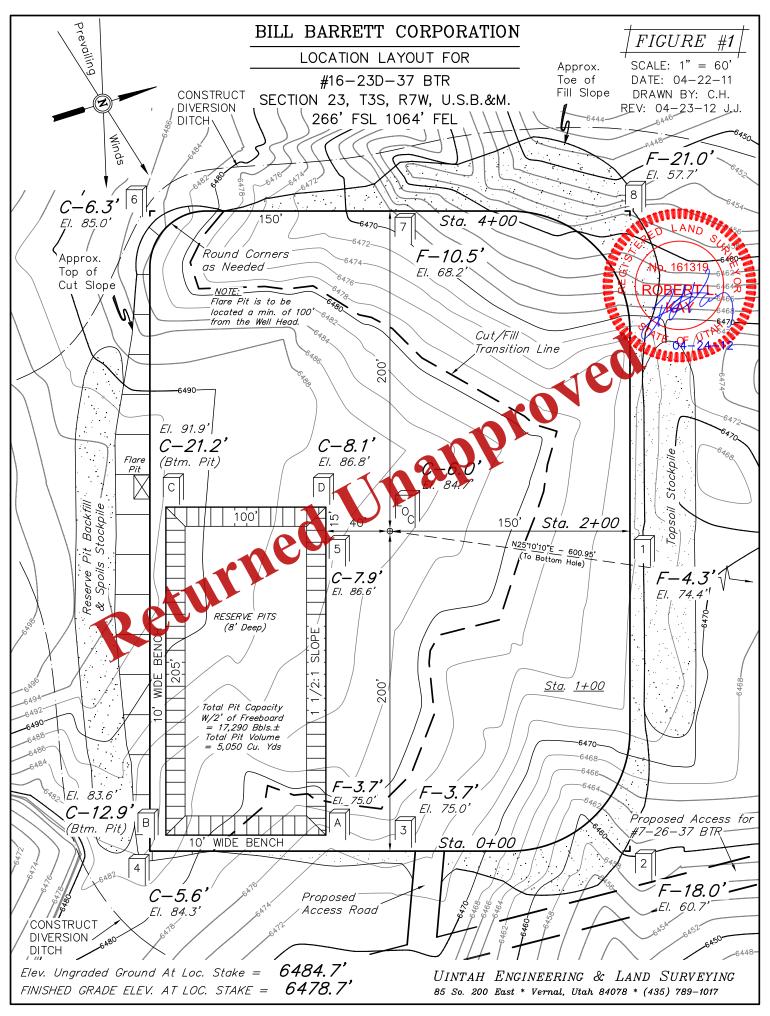
Sincerely,

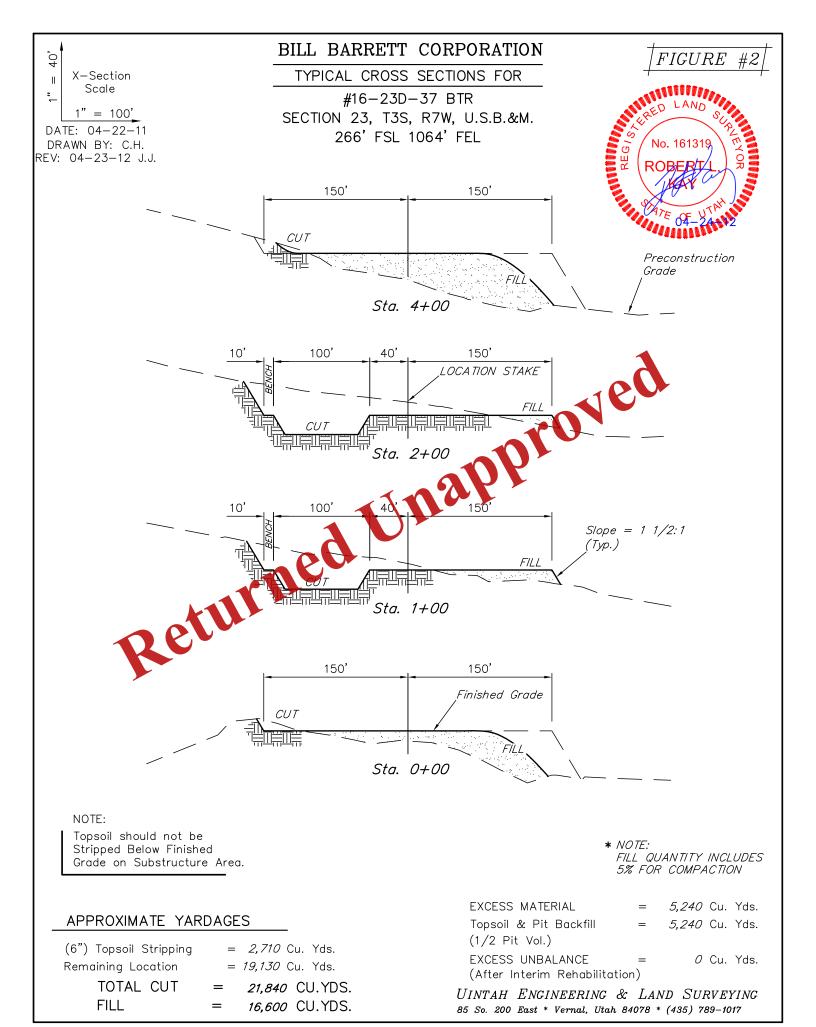
David Watts

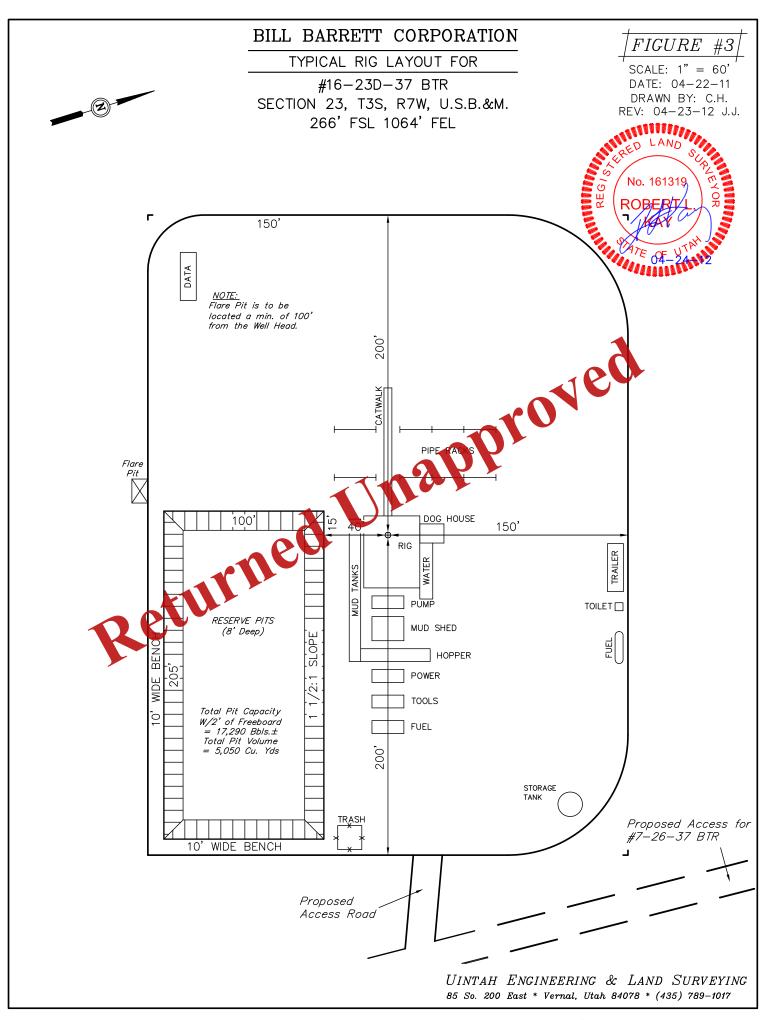
Landman

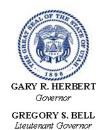
1099 18TH STREET SUITE 2300 DENVER, CO 80202 P 303.293.9100

Ned









State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

May 16, 2012

BILL BARRETT CORP 1099 18th Street Ste 2300 Denver, CO 80202

Re: Application for Permit to Drill - UINTAH County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the 16-23D-37 BTR well, API 43047526820000 that was submitted May 15, 2012 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah

